

CLAIMS

What is claimed is:

1. A communications system for providing broadband access to passengers of mobile platforms, comprising:

a router located on said mobile platform;

a network connected to said router; and

user communication devices (UCDs) connected to said network, wherein said UCDs establish point-to-point over Ethernet (PPPoE) sessions with said router.

2. The communications system of claim 1 further comprising:

a transmitter on said mobile platform that is connected to said router; and

a receiver on said mobile platform that is connected to said router.

3. The communications system of claim 2 further comprising:

a satellite in communication with said transmitter and said receiver of said mobile platform;

a ground station in communication with said satellite; and

a distributed communications system connected to said ground station.

4. The communications system of claim 3 wherein said distributed communications system is the Internet.

5. The communications system of claim 3 further comprising:
a virtual private network (VPN) connected to said distributed communications system.

6. The communications system of claim 5 further comprising:
a first address manager connected to said ground station that leases use of public Internet Protocol (IP) addresses by said mobile platform,
wherein said router includes a second address manager that communicates with said first address manager to lease said public IP addresses for said mobile platform.

7. The communications system of claim 6 wherein said second address manager assigns said public IP addresses when said UCDs request access to said VPN.

8. The communications system of claim 7 wherein said second address manager assigns private IP addresses to said UCDs for at least one network service provided by said mobile platform.

9. The communications system of claim 5 wherein said UCDs employ IPSec security protocol when communicating with said VPN.

10. A communications system for allowing passengers of mobile platforms to access virtual private networks, comprising:

a network on said mobile platform that communicates with a ground station via a satellite, wherein said ground station is connected to a virtual private network (VPN);

user communication devices (UCDs) connected to said network; and

a first address manager connected to said network that assigns public internet protocol (IP) addresses when said UCDs request a connection to said VPN and that assigns private IP addresses for at least one other network service.

11. The communications system of claim 10 further comprising:

a router connected to said UCDs and to said first address manager, wherein said UCDs establish point-to-point over Ethernet (PPPoE) sessions with said router.

12. The communications system of claim 10 further comprising:

a second address manager connected to said ground station and a distributed communications system, wherein said second address manager leases use of public Internet Protocol (IP) addresses to said mobile platform.

13. The communications system of claim 10 wherein said first address manager assigns public and private addresses without requiring said UCDs to reboot.

14. A public address manager for a broadband communications system for mobile platforms, comprising:

a network on said mobile platform that communicates with a ground station via a satellite;

user communication devices (UCDs) connected to said network;

a first address manager associated with said mobile platform that requests a public address block for said mobile platform; and

a second public address manager associated with said ground station that leases said public address block to said first address manager.

15. The public address manager of claim 14 wherein said first address manager periodically transmits a lease maintenance message to said second address manager.

16. The public address manager of claim 15 wherein said second address manager includes a lease timer that terminates said lease if said lease timer expires before said lease maintenance message is received.

17. A method for operating a communications system that provides broadband access to passengers of mobile platforms, comprising the steps of:

locating a router on said mobile platform;

connecting a network to said router;

connecting user communication devices (UCDs) to said network; and

establishing point-to-point over Ethernet (PPPoE) sessions between said UCDs and said router.

18. The method of claim 17 further comprising the steps of:

connecting a transmitter to said router; and

connecting a receiver to said router.

19. The method of claim 18 further comprising the steps of:

communicating with a satellite and a ground station that is connected to a distributed communications system using said transmitter and said receiver of said mobile platform.

20. The method of claim 19 wherein said distributed communications system is the Internet.

21. The method of claim 19 wherein a virtual private network (VPN) is connected to said distributed communications system.

22. The method of claim 21 further comprising the steps of:
managing use of public address blocks using a first address manager; and
requesting said public address blocks using a second address manager associated with said mobile platform.

23. The method of claim 22 further comprising the step of:
assigning said public IP addresses to said UCDs when said UCDs request access to said VPN.

24. The method of claim 23 further comprising the step of:
assigning private IP addresses to said UCDs for a network service.

25. The method of claim 21 wherein said UCD employs IPSec security protocol when communicating with said VPN.

26. A method for allowing passengers of mobile platforms to access virtual private networks (VPNs), comprising the steps of:

providing a network on said mobile platform;
connecting user communication devices (UCDs) to said network; and
providing a first address manager on said network that assigns public internet protocol (IP) addresses to said UCDs when said UCDs request access to said VPNs.

27. The method of claim 26 wherein said first address manager assigns private IP addresses for a service provided by said network.

28. The method of claim 27 further comprising the steps of:
connecting a router to said UCDs and to said first address manager; and
establishing point-to-point over Ethernet (PPPoE) sessions between said UCDs and said router.

29. The method of claim 28 further comprising the steps of:
connecting a second address manager (PAM) to a ground station; and
leasing use of public Internet Protocol (IP) addresses to said first address manager using said second address manager.

30. The method of claim 27 wherein said public and private addresses are assigned without requiring said UCDs to reboot.